

Curriculum Vitae
David Lee Black, Ph.D.

CURRICULUM VITAE

David Lee Black, Ph.D., DABFT, DABCC

PERSONAL DATA

Birth: January 28, 1948
Ypsilanti, Michigan

Address: 117 Cheyenne Drive
Hendersonville, Tennessee 37075
(615) 822-8555

Office Address:
Aegis Sciences Corporation
345 Hill Avenue
Nashville, Tennessee 37210
(615) 255-2400 ext. 611

MILITARY SERVICE

1966-1970 United States Marine Corps

1970-1972 United States Marine Corps Reserve
Disabled American Veteran

EMPLOYMENT

1990-Present Aegis Sciences Corporation
Aegis Analytical Laboratories
345 Hill Avenue
Nashville, Tennessee 37210
Position: Chairman, CEO, President and Director

1986-1990 Vanderbilt University Medical Center
Department of Pathology
Nashville, Tennessee 37232
Position: Director of Forensic/Clinical
Toxicology Laboratory
Director of Athletic Drug Testing Lab

1986 Maryland Medical Laboratory, Inc.
1901 Sulphur Spring Road
Baltimore, Maryland 21227
Position: Director Toxicology Division

1982-1986 Maryland Medical Laboratory, Inc.

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1901 Sulphur Spring Road
Baltimore, Maryland 21227
Position: Head, Toxicology Department

1977-1982 Maryland Medical Laboratory, Inc.
1901 Sulphur Spring Road
Baltimore, Maryland 21227
Position: Administrative Technologist of Division of Toxicology

1975-1977 Central Laboratories of Associated Maryland Pathologists,
Timonium, MD
Position: Evening Supervisor, Toxicology Technologist

1974-1977 Fellow, Department of Health, Education and Welfare,
Public Health Service, Maryland Medical-Legal Foundation,
111 Penn St, Baltimore, MD 21201
Field: Toxicology

1973-1974 Koppers, Baltimore, Maryland
Position: Chief Chemical Technician

ACADEMIC POSITIONS

1992-present Clinical Associate Professor
Meharry Medical College, Department of Pharmacology
Nashville, Tennessee

1991-present National Faculty United States Sports Academy
Daphne, Alabama

1990-1991 Clinical Assistant Professor
Department of Pathology,
Vanderbilt University School of Medicine
Nashville, Tennessee

1987-1990 Instructor, Department of Pharmacology
Vanderbilt University School of Medicine
Nashville, Tennessee

1986-1990 Assistant Professor of Pathology
Department of Pathology
Vanderbilt University School of Medicine
Nashville, Tennessee

1984-1986 Clinical Assistant Professor
Department of Pathology
Division of Forensic Pathology
School of Medicine,

Curriculum Vitae
David Lee Black, Ph.D.
University of Maryland
Baltimore, Maryland

LICENSURE AND CERTIFICATION

Tennessee State License-#013146
Medical Director-Chemistry

American Board of Bioanalysts-Certificate #5760
Clinical Laboratory Director

Diplomat, American Board of Forensic Toxicology-#187

Diplomat, American Board of Clinical Chemistry-#77

EDUCATION

1974-1982 University of Maryland School of Medicine
Pathology Department
Baltimore, Maryland
Degree: Ph.D., July 1982
Major: Forensic Toxicology Legal Medicine
Minor: Medicinal Chemistry, Pharmacology

1971-1974 Loyola College, Baltimore, Maryland
Degree: Bachelor of Science, 1974
Major: Biology
Minor: Chemistry

1970-1971 Eastern Michigan University
Ypsilanti, Michigan Degree: N/A
Major: Chemistry

1966 Wayne Memorial High School
Wayne, Michigan

DOCTORAL THESIS

A Sensitive Gas Chromatographic Method for Determination of Delta-9-tetrahydrocannabinol
in Serum Using Derivatization for Selective Nitrogen Detection

RESEARCH/ACADEMIC INTERESTS

Molecular Pharmacology, Membrane Physiology, Cannabinoid Analysis, *In Vitro* Drug
Metabolism, Anabolic Steroid Analysis, Toluenediamines

SPECIAL ACADEMIC STUDIES

Synthesis of Azo Derivatives of Cannabinoids

Benzodiazepines: A study of several sedative/hypnotic compounds. Characterization of the enzyme *tyrosine hydroxylase*.

Cardiac Dysfunction Due to Ion Imbalance in *Rana sp.*

Polyurethane Foam Biodegradation

PATENTS

Apparatus for Continuously Sampling Plasma (Patent # 4,976,270)

CONTINUING EDUCATION

IOC Doping Control Workshop, Cologne, Germany 1986

IOC Doping Control Workshop, Cologne, Germany 1987

IOC Doping Control Workshop, Cologne, Germany 1988

PERSONAL INTERESTS

2002-present President, Hendersonville Rotary Club
Hendersonville, TN, District 6760

2001-present Board of Directors, Directors, Samaritan Association
Hendersonville, TN

2001-present Chairman, Sumner County Republican Party
Tennessee

2000-2002 Board of Directors, Aladdin Credit Union
Nashville, TN

1993-1994 Leadership Sumner, Sumner County, TN

1993-1994 President, Church Council, St. Timothy
Lutheran Church, Hendersonville, TN

1993-1994 Chairman, Vision 2000 Public Health Committee
Mayors Task Force
Hendersonville, TN

1990-1993 Vice-President, Church Council
St. Timothy Lutheran Church, Hendersonville, TN

1988-present Member, Rotary International,

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Hendersonville TN, District 6760

- 1986 Member, Nashville Amateur Athletic Committee
Special Mayors Committee to promote and encourage amateur athletes.
- 1986-1987 Printing Chairman, Annapolis Wildfowl Carving and Art Exhibition,
Annapolis, Maryland
- 1985-1986 President
College Manor Community Association, Inc.
Arnold, Maryland.

ACHIEVEMENTS AND HONORS

Hendersonville Citizens Police Academy Graduate, 2001
Citizens FBI Academy Graduate, 2000
Paul Harris Fellow, Rotary International
AACC Outstanding Speakers Award 1993
Meritorious Promotion to Lance Corporal, USMC
Meritorious Promotion to Corporal, USMC
Meritorious Promotion to Sergeant, USMC
Vietnam Service Ribbon
Vietnam Campaign Ribbon
Vietnam Combat Action Ribbon
Qualified Expert and Sharpshooter Rifleman
Graduate of Military Aviation Electronic/Computer Schooling
Honorable Service Discharge
Member of Beta Beta Beta Biology Honor Society
Deans List- Loyola College 1972
Vice President, Loyola Yacht Club

PROFESSIONAL ASSOCIATIONS

Fellow, American Institute of Chemists
Member, American Chemical Society
Member, American Association for Clinical Chemistry
Member, The American Academy of Forensic Sciences
Member, The International Association of Forensic Toxicologists

CONSULTANT

Breast Implant Litigation Group, Dallas, Texas
Abbott Laboratories, Chicago, Illinois
Washington College of Law, The American University, Washington, D.C.
Prisoners Legal Aid Bureau, Baltimore, Maryland
Help-Net, Salisbury, Maryland
Consortium for the Space Life Sciences, Huntsville, Alabama

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David Lee Black, Ph.D.

National Football League, New York, New York

Department of Alcoholism and Substance Abuse

National Institute on Drug Abuse, Laboratory Inspector (1988-2001)

MANAGEMENT BACKGROUND

TRAINING:

Dunn and Bradstreet Seminars 1981-1983

Stress Management 1984

General Management Training 1984-1985

EXPERIENCE:

Management Positions: 1977-Present

Manage Professional Staff Members at

Ph.D./B.S./M.S. Level

Direct Research of new Analytical Methods

Direct Development of new Test Methods

Establish and Direct Analytical areas of:

Athletic Drug Testing (Doping Control)

Emergency Toxicology

Therapeutic Drug Monitoring

Forensic Toxicology

Special Toxicology

Environmental Toxicology

Water Analysis

Metal Analysis

Research and Development

Direct Purchase of New Analytical Systems

Direct Analytical Quality Control (Quality Assurance)

Direct Instrument Quality Control

Develop and Instruct Employee Training

Develop and Instruct Client Training

Establish and Direct Analytical Methods of:

Chromatography:

Thin Layer Chromatography

Gas- Liquid Chromatography

Packed-Glass Columns

Micro-bore Capillary

Wide-bore Capillary

Flame Ionization Detection

Nitrogen-Phosphorous Detection

Electron-Capture Detection

Mass-Selective Detection

Mass Spectrometry

Infra-red Detection

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High - Performance Liquid Chromatography

UV Detection

Electrochemical Detection

Mass Spectrometry

Spectrophotometry:

Ultraviolet

Visible

Fluorescence

Immunoassay:

Neuroleptic Radioreceptor Assay

Radioimmunoassay

Fluorescence Polarization

Enzyme Multiplied Immunoassay Technique
(EMIT)

Enzyme-Linked Immunoassay (ELISA)

Spectroscopy:

Atomic Absorption (AA)- Flameless

DC Emission

Electrochemistry:

Ion Selective Electrodes (ISE)

Anodic Stripping Voltametry (ASV)

PUBLICATIONS

Black, D.L. "A Sensitive Gas Chromatographic Method for The Determination of Delta-9 tetrahydrocannabinol (THC) in Serum Using Derivatization for Selective Nitrogen Detection", University Microfilms International, Ann Arbor, Michigan, 1982.

Black, D.L. "Factors Affecting Blood Drug Levels", Clin. Chem. News. 9:21-23, April (1983).

Black, D.L., Goldberger, B.A., Isenschmid, D.S., White, S.M., and Caplan, Y.H., "Urine Cannabinoid Analysis: An Integrated Multi-Method Approach", J. Anal. Toxicol., 8:224-227, (1984)

Black, D.L., Goldberger, B.A., Caplan, Y.H., "Enzyme Immunoassay Method for Comprehensive Drug Screening in Micro-Samples of Urine", Clin. Chem., 33:3, 367-371 (1987).

Backfish, G.E., Ulinski, D.E., Parl, F.F., Black, D.L., "Computer-Assisted Graphic Display of Serial Cyclosporine Determinations in Blood with Parallel Creatinine Concentrations", Transplantation Proceedings, Vol. XX, No. 2, Suppl. 2 (April 1988).

Black, D.L., "Testing for Abused Drugs: A Primer for Executives" in Drug Testing: Protection for Society or a Violation of Civil Rights?, The Council of State Governments, Lexington, Kentucky, 1987.

Tennant, F., Black, D.L., and Voy, R.O., "Anabolic Steroid Dependence with Opioid Type Features", N. Engl. J. Med., 319:9, 578, (1988).

Backfish, G.E., Moscioni, A.D., Barbour, R., Black, D.L., and Demetriou, A.A., "Cyclosporine-A Metabolism by Rat Hepatocytes in a Bioreactor System", International Association for the Study of the Liver.

Black, D.L., "Drug Testing", Postgrad. Med., 85:6, 47(1989).

Finkle, S., Black, D.L., Blanke, R.V., Jones, G.R., and Sample, R.H., "Analysis for Commonly Abused Drugs at Selected Threshold ("cut off") Concentrations", Clin. Chem., 37:4, 586-587, (1991).

Lacy, P., Ruzumna, P., Williams, P., Bracy, D., Boothe, H., Black, D.L., Abumrad, N. and Nasserman, D., "Effect of Suprapharmacological Androgenic Steroid Treatment on Basal and Insulin-Stimulated Glucose Metabolism", FASEB, (1991)

Bluhm, R.E., Rodgers, W.H., Black, D.L., Wilkinson, G.R., and Branch, R., "Cholestasis in transplant patients- what is the role of Cyclosporine?" Aliment. Pharmacol. Ther. 6, 207-219 (1992)

Black, D.L., Drug Testing in Sports: Reprints of Selected Articles from Journal of Analytical Toxicology, Preston Publications (1995)

Black, D.L., Fugate, M.E. and Epstein, S.S., "Poly(ester)urethane Foam Covered Breast Implants; Biodegradation and Release of Toluenediamines", submitted.

Black, D.L., "Doping Control Testing Policies and Procedures: A Critique" in Doping in Elite Sport, The Politics of Drugs in the Olympic Movement, Eds. Wayne Wilson and Edward Derse, Human Kinetics Publishers (2001)

PRESENTATIONS

Black, D.L., Ritchie, L., and Caplan, Y.H. "A Gas Chromatographic Method for Cannabinoid Determinations in Biological Specimens." 35th Annual Meeting of the American Academy of Forensic Sciences, Cincinnati, 1983.

Black, D.L., "Emergency Toxicology." Vanderbilt University Medical Center Symposia, Advances in Laboratory Medicine, Nashville, Tennessee, 1986.

Black, D.L., "Drugs in Sports." Kentucky State Society of Medical Technology, Frankfort, Kentucky, 1987.

Black, D.L., "Drug Testing in the Workplace." Floyd Medical Center Symposia, Rome, Georgia, 1987.

Black, D.L., "Drug Testing Technology." The Council of State Governments Symposia, Drug Testing: Protection for Society or a Violation of Civil Rights? Lexington, Kentucky, 1987.

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- Black, D.L., "Therapeutic Drug Monitoring in the Physician's Laboratory." Vanderbilt University Medical Symposia, Testing in the Physicians Office Laboratory, Nashville, Tennessee, 1987.
- Black, D.L., "Testing for Abused Drugs." Abbott Laboratories, International Teleconference (nine presentations), September 1986 through May 1987.
- Black, D.L., "Cyclosporine- Pharmacokinetics and Testing." Vanderbilt University Medical Center Symposia, Advances in Laboratory Medicine, Nashville, Tennessee, 1987.
- Black, D.L., "Anabolic Steroids and Athletes," Vanderbilt University Medical Center Symposia, Advances in Laboratory Medicine, Nashville, Tennessee, 1987.
- Backfish, G.E., Ulinski, D.E., Parl, F.F., and Black, D.L., "Computer-Assisted Graphic Display of Serial Cyclosporine Determinations in Blood with Parallel Creatinine Concentrations," the Second International Congress on Cyclosporine, Washington, D.C., 1987.
- Black, D.L., "Anabolic Steroids: Pharmacology and Laboratory Measurements," Gateway Clinical Ligand Assay Society, St.Louis, 1987.
- Black, D.L., "Anabolic Steroids: Better Athletes through Chemistry?" 40th Annual Meeting of the American Academy of Forensic Sciences, Philadelphia, 1988.
- Black, D.L., "Anabolic Steroid Analysis," Rochester Hospital Association for Clinical Chemistry, Rochester, New York, 1988.
- Black, D.L., "Drugs of Abuse," Tennessee Society for Medical Technology, Nashville, 1988.
- Black, D.L., Flatt, A.C., and Hayden, T.G., "19-Nortestosterone Metabolism and Analysis," 41st Annual Meeting of the American Society of Forensic Sciences, Las Vegas, 1989.
- Black, D.L., "What is involved in testing- specifically steroids?" Steroid Seminar, National Federation of State High School Associations, Kansas City, MO, 1989.
- Black, D.L., "Anabolic Steroids: Drugs of Champions," 40th Annual National Athletic Trainers Association, Inc., Dallas, 1989.
- Black, D.L., "Anabolic Steroid as Abused Drugs," The Educational Community and Drug Abuse Seminar, University of Louisville, Louisville, 1989.
- Black, D.L., "Physical and Psychological Problems Associated with Steroid Use," Southeastern Conference Seminar on Controlling Substance Abuse in College and High School Athletic Programs.
- Black, D.L., "Anabolic Steroids: Better Athletes Through Chemistry?" Southeastern Conference Seminar on Controlling Substance Abuse in College and High School Athletic Programs, Atlanta, 1989.
- Black, D.L., "Abused Drug Testing Issues," American Society for Medical Technology, Region

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VI Conference, Osage Beach, MO, 1989.

Black, D.L., "Forensic Urine Drug Testing," American Society for Medical Technology Region I Conference, Cromwell, CT, 1989.

Black, D.L., "Anabolic Androgenic Steroids," Western Kentucky University, Bowling Green, KY, 1989.

Black, D.L. and Cook, L., "Evaluation of the Abbott Laboratories MTDx Drug Analysis System", 41st National Meeting American Association for Clinical Chemistry, Atlanta, GA 1989.

Black, D.L., "Drugged Driving- A State of the Art Analysis," Illinois Department of Alcoholism and Substance Abuse, 7th Annual Convention, Chicago, IL 1990.

Black, D.L., "Drug Testing- Procedure, Pros and Cons," Delaware Secondary School Athletic Association, In-Service Day Chemical Abuse Program, Dover, DE, 1990.

Black, D.L., "Drug Testing Toxicology, Methodology and Technology", Pennsylvania Commission on Crime and Delinquency, Drug Testing Seminar, Harrisburg, PA, 1990.

Black, D.L., "Urine Drug Analysis: Clinical or Forensic Testing?" Tennessee Society For Medical Technology, Annual Meeting and Seminar, Nashville, TN, 1991.

Black, D.L., "Principles and practice of immunoassay screening: interfering substances," Society of Armed Forces Medical Laboratory Scientists, Methods and Issues in Substance Abuse Testing Workshop, San Antonio, TX 1992.

Black, D.L., "Forensic Toxicology Regulations: A United States Experience", The International Congress on Forensic Toxicology TIAFT Tri-annual Meeting, Leipzig, Germany, 1993

Black, D.L., "Testing for Abused Drugs", Pharmacists Recovery Network, Atlanta, GA, 1992

Black, D.L., "Drug Screening", 2nd Annual Texas Health Professionals Peer Assistance Conference, Austin, TX, 1993

Black, D.L., "Drugs of Abuse and Employee Drug Testing", Security Committee of the American Hotel and Motel Association, Memphis, TN 1995

Black, D.L., "Steroids and Drug Testing", Baptist Hospital Sports Medicine, Nashville, TN 1995

Black, D.L., "Anabolic Steroids and Performance Enhancing Drugs", National Strength and Conditioning Association, Phoenix, AZ 1995

Black, D.L., "Physiological Effects of Anabolic Steroid Use", Southern Sports Medicine & Orthopaedic Center, Nashville, TN 1995

Black, D.L., "Sports and Drugs: Better Athletes Through Chemistry", Health Occupation Students of America, Louisville, KY 1995

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- Black, D.L., "Drugs of Abuse Testing in Today's Laboratory Environment", Abbott Symposium, Annapolis, MD 1995
- Black, D.L., "The Unborn Baby and Drugs", Health Occupations Students of America, Pigeon Forge, TN 1995
- Black, D.L., "Poly(ester)urethane Foam Implants", Middle Tennessee Mammography Society, Nashville, TN 1997
- Black, D. L., "Performance Enhancing Drugs: Consideration in the Female Athlete", Baptist Sports Medicine, Nashville, TN 1997
- Black, D.L., Klockenbrink, P.G. and Lonchar, M.C., "Considerations in Providing a Drug and Alcohol Free Workplace and the Potential Benefits to Employers", Workers Compensation and Employment Law in Virginia, Roanoke, VA 1997
- Black, D.L. and Johnson, D., "Forensic Drug Testing Technologies: Current Issues", Minicourse at the National Athletic Trainers' Association 49th Annual Meeting and Clinical Symposia, Baltimore, Maryland, 1998
- Black, D.L., "Legalization of Marijuana for Medical Reasons", YMCA Youth Legislature National Youth Meeting, Nashville, TN 1999
- Black, D.L., "Accuracy in Athletic Drug Testing", Southeast Conference Medical Directors Annual Meeting, Nashville, TN 2000
- Black, D.L., "Zero-Tolerance Drug Testing", Naval Medical Center, San Diego, CA, 2000
- Black, D.L., "Medicine, Pharmacy and Unintended Consequences" The Sterling Drug Visiting Professor Program, The Fifteenth Ralph J. Cazort, M.D. Lecture, Meharry Medical College 2000
- Black, D.L., "How Can I Create and Effective Drug-Free Sports Program?" Alabama Athletics Trainers Association, Gulf Shores, AL, 2001
- Black, D.L., "Adulterants and Urine Drug Testing", Middle Tennessee Human Resource Managers Annual Meeting, Smyrna, TN, 2001
- Black, D.L., "Legalization of Marijuana", YMCA Youth Legislature National Youth Meeting, Nashville, TN 2002
- Black, D.L., "Drug Testing Accuracy: Factors and Annoying Facts" Abbott Laboratories National Webcast (two presentations), 2002